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SOME BEES OF THE GENUS *CERATINA* FROM AFRICA[1]

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The bees recorded below are all from the collections of Messrs. Lang and Chapin, except the two from Natal. All are in The American Museum of Natural History.

Ceratina diloloensis Cockerell

Belgian Congo: Stanleyville, two females and two males, March, April. The scutellum is considerably larger than in *C. lucifera* Cockerell, a species occurring from Elisabethville to Tshibinda, with black tubercles strongly fringed with light hair, and in general closely resembling *C. diloloensis*.

Ceratina durbanensis, new species

MALE.—Length about 8.2 mm.; very robust, black, the tergites not fimbriate; labrum (which has a shining median groove), mandibles, antennae, tubercles, and tegulae black, except that the labrum has a small yellow spot at lower end, far from clypeus; clypeus with a large triangular orange mark covering the greater part of its surface, leaving only the margins dark, this orange area being dullish and strongly sculptured; face very densely punctured, but a shining band at each side of upper part of clypeus, and a polished area on each side above level of top of clypeus but below level of antennae; disc of mesothorax broadly shining, with the strong punctures widely spaced; scutellum very densely and coarsely punctured; wings fuliginous; second cubital cell rather narrow; legs black, front femora all black, but their tibiae with a white stripe nearly to the end, and a small white spot on hind knees; abdomen broad, coarsely sculptured, sixth tergite obtusely keeled apically; seventh tergite not at all prominent; apex of venter with a small pit.

Natal: Durban, 1917 (No. 4969; collector's name not given). My manuscript key to male *Ceratina* will aid in separating this species from certain of its relatives.

1.—Labrum all black ..... 2.
Labrum with a light spot, far from clypeus ..... 3.
2.—Clypeal mark smooth and highly polished (National Park, Natal; A. Mackie). *politula* Ckll.
Clypeal mark coarsely punctured (Tshibinda, Belgian Congo; J. Ogilvie). *lucifera* Ckll.
3.—Clypeal mark smooth and polished, with hardly any punctures; small species (Greytown, Natal; J. Ogilvie) ..... *politula griseipennis* Ckll.
Clypeal mark rough and coarsely punctured ..... 4.

[1]Scientific Results of the Congo Expedition, Entomology No. 26.

4.—Larger and more robust, clypeal mark orange..... *durbanensis* Ckll.
Smaller and more slender, clypeal mark creamy white (Tenke, Katanga; J. Ogilvie)..... *lucifera sidifera* Ckll.

Ceratina geigeriae Cockerell

FEMALE.—Length about 6.2 mm.; black, a sort of blue-black, the face more distinctly bluish; labrum and mandibles black; flagellum faintly brownish beneath; tegulae very dark brown; tubercles broadly tipped with yellowish white; clypeal mark a vertical bar, pale but dull yellow, shining, broadening toward lower end, with a pair of raised lines running from upper part to near lower end, converging below, on the black part of clypeus at sides of mark a regular row of well-defined punctures and outside of these a row of very minute punctures ; head and thorax very densely punctured, including disc of mesothorax; scutellum densely punctured, with a shining spot in middle anteriorly; metathorax with a broad dull basal area; wings dilute fuliginous, strongly brown; second cubital cell with a broad face on marginal; legs dark brown; front femora with a white stripe beneath, their tibiae with a white stripe; hind tibiae with a white mark at base, and much white hair, there is no tooth on hind margin; abdomen black, finely sculptured, tergites fimbriate at sides, the flattened hairs reddish; keel of sixth tergite extremely weak, hard to see.

Belgian Congo: Banana, August, 1915 (Lang and Chapin). I give a description of this insect, which varies a little from the Angola type of *C. geigeriae* but is certainly the same species. In the type of *C. geigeriae* the flattened hairs fringing the tergites at sides are white. This species extends to Liberia, where it was taken by Dr. J. Bequaert.

Ceratina langi, new species

FEMALE.—Length about 7.4 mm., anterior wing 6.2; strongly punctured, glistening, very dark green, the apical part of the abdomen dark blue; mandibles, labrum, antennae, tegulae, and legs black, the legs without light markings, but the tarsi slightly rufescent apically; tubercles black, with slightly brownish hair; labrum with a median groove; clypeus very peculiar, it is large and high, presenting a large shining impunctate surface, somewhat concave above, transversely swollen below, the upper boundary of this space forming an edge, above which is a dull yellow transverse bar, rather less than one-third of diameter of face; at each side of clypeus, next to the lower edge, is a short yellow vertical shining band: punctures of head and thorax extremely coarse, disc of mesothorax shining between punctures; axillae not produced; scutellum densely punctured; base of metathorax with a slender shining transverse channel; wings dark fuliginous; stigma very dark; marginal cell broad; in the type, on both sides, the third cubital cell is transversely divided into two, but this must be abnormal; second cubital cell very large, much narrowed above; hair on inner side of tarsi rufous; tooth on hind tibia well beyond the middle; abdomen very broad, rough; sixth tergite neither keeled nor grooved; tergites not fimbriate.

Belgian Congo: Stanleyville, March, 1915 (Lang and Chapin). A very distinct species, apparently a metallic relative of the group of *C.*

lunata Friese, but with unique clypeal markings. The lateral marks somewhat recall those of *C. sculpturata* Smith, from Senegal.

Ceratina mimula Cockerell

Natal: Durban (No. 4457; collector's name not given.)

Ceratina musarum, new species

FEMALE.—Length about 6.5 mm.; black, the face rather blue-black, the abdomen obscurely greenish; mandibles, labrum, tubercles, and tegulae black; flagellum very obscurely brownish beneath; clypeal mark orange, highly polished, with a few large punctures near lower corners, the upper part shaped like the end of a finger, but distinctly tapering and not truncate, with small lateral projections below; in two of the three sepcimens the clypeal mark is light yellow; labrum coarsely punctured and with a large basal pit; a shining, sparsely punctured band behind ocelli; head and thorax densely punctured, but disc of mesothorax with very large, distinctly separated punctures; scutellum densely punctured; base of metathorax dull; wings with apical half dilute brownish; stigma large, very dark brown, second cubital cell not broad above; legs black, with small joints of tarsi more or less reddish; front femora all black, but their tibiae with a white stripe on basal half; tooth of hind tibia far from base but before the middle; tergites slightly fimbriate at sides; sixth tergite with a complete distinct keel.

Belgian Congo: Banana, August-September, 1915, three specimens (Lang and Chapin). Several similar females are separated as follows.

1.—Clypeal mark white or creamy white, with a median groove; front tibiae with a white stripe at base; tergites very strongly fimbriate (Elisabethville; W. P. Cockerell) ..... *crassula* Ckll.
Clypeal mark yellow or orange ..... 2.
2.—Clypeal mark very narrow, narrowest above ..... *bukavana* Ckll.
Clypeal mark not very narrow ..... 3.
3.—Clypeal mark with a strong groove ..... 4.
Clypeal mark not or not evidently grooved ..... 5.
4.—Front tibia with a pale stripe ..... *crassula* Ckll. var. *a.*
Front tibia with no light stripe ..... *crassula* Ckll. var. *b.*
5.—Larger; clypeal mark truncate above (Liberia) ..... *insuta* Ckll.
Smaller; clypeal mark narrowed above ..... *musarum* Ckll.
The last two are perhaps races of a single species.

Ceratina viridifrons Cockerell

Belgian Congo: Faradje, January, 1913, one female. This is allied to *C. viridis*, but is very much darker, the mesonotum and scutellum being black. The white clypeal mark is very broad. The type, from Tenke (J. Ogilvie), has the abdomen blue, basal half greenish, and the hind tibiae with only a small light mark at base. The Faradje specimen has the abdomen dark green, and the hind tibiae with a large basal mark,

but the hind basitarsi are not black, as they are in a variety from Congo da Lemba (R. Mayné). The species appear to be very variable.

Ceratina viridis Guérin

Belgian Congo: Banana, both sexes, August, 1915; Malela, July 5, 1915, male; Gamangui, February, 1910, male; Garamba, July, 1912. female; Stanleyville, April, 1915, ten females.